

In the Claims:

1 1. (currently amended) A method of fabricating a semiconductor
2 device by employing ion implantation to provide a
3 semiconductor substrate [[(1)]] at a surface thereof with
4 a region having dopant introduced therein, comprising the
5 steps of: providing said semiconductor substrate [[(1)]] at
6 a surface thereof with a mask layer including a polyimide
7 resin ~~film~~ (2); film; and implanting dopant ~~ions~~ (5). ions.

1 2. (currently amended) A method of fabricating a semiconductor
2 device by employing ion implantation to provide a
3 semiconductor substrate [[(101)]] at a surface thereof with
4 a region having dopant introduced therein, comprising the
5 steps of: providing said semiconductor substrate [[(101)]]
6 at a surface thereof with a mask layer [[(103)]] including
7 a SiO_2 film (107a, 107b) and a thin metal ~~film~~ (105); film;
8 and implanting dopant ~~ions~~ (5). ions.

Claims 3 to 5 (canceled).

1 6. (currently amended) The method of claim 1, wherein said
2 semiconductor substrate [[(1)]] is heated to at least 300°C
3 and dopant ions [[(5)]] are implanted.

1 7. (currently amended) The method of claim 1, wherein said
2 semiconductor substrate $[(1)]$ is heated to at least 500°C
3 and dopant ions $[(5)]$ are implanted.

1 8. (currently amended) The method of claim 1, wherein said
2 polyimide resin film $[(2)]$ is formed of photosensitive
3 polyimide resin.

1 9. (currently amended) The method of claim 1, wherein said
2 polyimide resin film $[(2a)]$ has a thickness of at least
3 twice a depth of dopant introduced into said semiconductor
4 substrate $[(1)]$ at a region free of said polyimide resin
5 film $(2a)$. film.

1 10. (currently amended) The method of claim 1, wherein a thin
2 metal film is posed between said polyimide resin film
3 $[(2a)]$ and said semiconductor ~~substrate (1)~~. substrate.

1 11. (currently amended) The method of claim 1, wherein a thin
2 film formed of SiO_2 is posed between said polyimide resin
3 film $[(2a)]$ and said semiconductor ~~substrate (1)~~.
4 substrate.

1 12. (currently amended) The method of claim 2, wherein said
2 semiconductor substrate $[(101)]$ is heated to at least
3 300°C to 500°C and dopant ions are implanted.

1 13. (currently amended) The method of claim 2, wherein said
2 semiconductor substrate [[<101>]] is heated to at least
3 500°C to 800°C and dopant ions are implanted.

1 14. (currently amended) The method of claim 2, wherein said
2 mask layer [[<103>]] is formed of at least three layers.

1 15. (currently amended) The method of claim 2, wherein said SiO₂
2 film ~~<107a, 107b>~~ and said thin metal film [[<105>]] each
3 have an average thickness of 500 nm to 1.5 μ m.

1 16. (currently amended) The method of claim 2, wherein said
2 mask layer [[<103>]] includes a SiO₂ film as a film
3 corresponding to a bottommost layer.

1 17. (currently amended) The method of claim 2, wherein said
2 mask layer [[<103>]] includes a thin metal film as a film
3 corresponding to a bottommost layer.

1 18. (currently amended) The method of claim 2, wherein said
2 mask layer [[<103>]] includes a SiO₂ film as a film
3 corresponding to a topmost layer.

1 19. (currently amended) The method of claim 2, wherein said
2 mask layer [[<103>]] includes a thin metal film as a film
3 corresponding to a topmost layer.

1 **20.** (currently amended) The method of claim 2, wherein said SiO₂
2 film ~~(107a, 107b)~~ is formed by SOG.

1 **21.** (new) The method of claim 2, wherein said semiconductor
2 substrate is a SiC semiconductor substrate.

1 **22.** (new) The method of claim 2, wherein said mask layer is
2 deposited on said semiconductor substrate at a region to be
3 undoped with dopant ions.

1 **23.** (new) The method of claim 2, wherein said dopant ions are
2 implanted into a region unmasked by said mask layer.

1 **24.** (new) The method of claim 1, wherein said semiconductor
2 substrate is a SiC semiconductor substrate.

1 **25.** (new) The method of claim 1, wherein said mask layer is
2 deposited on said semiconductor substrate at a region to be
3 undoped with dopant ions.

1 **26.** (new) The method of claim 1, wherein said dopant ions are
2 implanted into a region unmasked by said mask layer.

[AMENDMENT CONTINUES ON NEXT PAGE]